Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0604281F: TACTICAL DATA NETWORKS ENTERPRISE

BA 5: Development & Demonstration (SDD)

COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	160.316	132.941	52.355	-	52.355	32.351	37.081	30.846	31.438	Continuing	Continuing
655050: TDL System Integration	57.784	67.842	34.934	-	34.934	28.135	31.569	30.846	31.438	Continuing	Continuing
655262: Family of Gateways	102.532	65.099	17.421	-	17.421	4.216	5.512	-	-	Continuing	Continuing

#### Note

FY 2011 funding totals include \$30.0M requested for Overseas Contingency Operations.

The program funding includes reductions for reports/studies/boards efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.509M in FY 2012.

#### A. Mission Description and Budget Item Justification

The Tactical Data Networks Enterprise (TDNE) contributes to the development, delivery and deployment of the next generation aerial layer network through a portfolio of legacy and advanced waveform development/management efforts that advance interoperability and connectivity. This will be accomplished via fielded and future ground and gateway investments while addressing warfighter urgent demands through the establishment of Quick Reaction Capabilities (QRC). The TDNE conceptualizes, acquires and fields aerial networking capabilities to support legacy, current, in-development, and future systems across all domains of information exchange that enables strike, mobility, special operations, Command and Control (C2), Intelligence, Surveillance and Reconnaissance (ISR), air, surface, subsurface and space operations. These capabilities ensure a robust and agile extension of the global information domain down to the tactical edge in support of the warfighter.

Funding will provide for the study, analysis, enhancement, development, integration, demonstration, test, and evaluation of Tactical Data Links (TDLs) as a subset of the broader Aerial Layer Network. TDLs are used in both peace time and combat environments to exchange information such as character-oriented and fixed-formatted messages, data, radar tracks, target information, platform status, imagery, free-text messaging and command assignments. TDLs provide interoperability, local and global connectivity, and situational awareness to the user when operating under rapidly changing operational conditions. TDLs increase mission effectiveness by providing enhanced situational awareness, positive combat identification of aircraft in the network, correlation of on- and off-board sensor data, digital sharing of machine to machine target and threat information, thereby, enabling time critical targeting and other mission assignment tasking. TDLs are used by all Service Theater Command and Control (C2) elements, weapons platforms, and sensors. TDLs include, but are not limited to: Link 16, Link 11, Situational Awareness Data Link (SADL), Variable Message Format (VMF), Intra-Flight Data Link (IFDL), and other Advanced Tactical Data Link technologies, such as Tactical Targeting Network Technology (TTNT), and Multifunction Advanced Data Link (MADL).

Funding also supports Family of Gateway study, analysis, enhancement, development, integration, demonstration, test, and evaluation efforts that will allow joint combat forces to exchange information quickly and accurately by bridging discrete airborne, terrestrial, maritime, and space-based C4ISR networks to produce operational effects not possible within individual networks. Gateway functions include enabling interoperability between data formats, protocols, and communication mediums. Additionally, gateway functions extend the range of connectivity, consolidate data from multiple networks into high capacity links for transmission to key C4ISR nodes, routes information between disadvantaged users, and correlates data from multiple sources to improve accuracy. Gateway functions also provide

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	_
3600: Research, Development, Test & Evaluation, Air Force	PE 0604281F: TACTICAL DATA NETWORKS ENTERPRISE	
BA 5: Development & Demonstration (SDD)		

application hosting, shared data storage, on-demand information access, smart data forwarding, and system monitoring/network management. Funding will also support Quick Reaction Response capability requests by the warfighter and support activities associated with the Joint Aerial Layer Network (JALN) Analysis of Alternatives.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	87.444	132.941	67.790	-	67.790
Current President's Budget	160.316	132.941	52.355	-	52.355
Total Adjustments	72.872	-	-15.435	-	-15.435
<ul> <li>Congressional General Reductions</li> </ul>		-			
<ul> <li>Congressional Directed Reductions</li> </ul>		-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>		-			
<ul> <li>Congressional Directed Transfers</li> </ul>		-			
<ul> <li>Reprogrammings</li> </ul>	78.192	-			
SBIR/STTR Transfer	-4.624	-			
Other Adjustments	-0.696	-	-15.435	-	-15.435

## Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 655262: Family of Gateways

Congressional Add: Battlefield Airborne Communications Node

	FY 2010	FY 2011
	79.300	-
Congressional Add Subtotals for Project: 655262	79.300	-
Congressional Add Totals for all Projects	79.300	-

# **Change Summary Explanation**

FY 2011 budget reflects implementation, testing, and initial fielding of the BACN capability on the Global Hawk platform (under the Family of Gateways project).

FY 2012 funding reduction due to cancellation of Network Enabled Weapons efforts and realignment of funding for higher AF priorities.

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Exhibit R-2A, RDT&E Project Just	ification: PE	3 2012 Air Fo	orce						<b>DATE</b> : Feb	ruary 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETWORKS ENTERPRISE  PROJECT 655050: TDL System				L System In	tegration		
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
655050: TDL System Integration	57.784	67.842	34.934	_	34.934	28.135	31.569	30.846	31.438	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

#### A. Mission Description and Budget Item Justification

Funding will provide for the study, analysis, enhancement, development, integration, demonstration, test, and evaluation of Tactical Data Links (TDL) as a subset of the broader Aerial Layer Network. TDLs are used in both peace time and combat environments to exchange information such as character-oriented and fixed-formatted messages, data, radar tracks, target information, platform status, imagery, free-text messaging and command assignments. TDLs provide interoperability, local and global connectivity, and situational awareness to the user when operating under rapidly changing operational conditions. TDLs increase mission effectiveness by providing enhanced situational awareness, positive combat identification of aircraft in the network, correlation of on- and off-board sensor data, digital sharing of machine to machine target and threat information and, thereby, enabling time critical targeting and other mission assignment tasking. TDLs are used by all Service Theater Command and Control (C2) elements, weapons platforms, and sensors. TDLs include, but are not limited to: Link 16, Link 11, Situational Awareness Data Link (SADL), Variable Message Format (VMF), Intra-Flight Data Link (IFDL), and other Advanced Tactical Data Link technologies, such as Tactical Targeting Network Technology (TTNT), and Multifunction Advanced Data Link (MADL).

The number of Air Force platforms hosting TDLs is expanding from C2 aircraft (E-3, E-8, etc.) to the fighter, bomber, ISR, tanker, airlift and other tactical fleets (F-15, F-16, F-22A, Rivet Joint, B-1, B-2, B-52, etc.), as well as to precision guided munitions. Utilization of TDLs in a joint environment requires the integration of terminals into host platforms and interoperability of TDL networks across all deployed joint and coalition platforms.

Efforts in this project include waveform and integration activities.

#### Waveform:

Waveform activities include, but are not limited to enabling and supporting Joint Interoperability of Tactical Command and Control Systems (JINTACCS), interoperable System Management and Requirements Transformation (iSMART), Network Enabled Weapons (NEW), Initial Fielding Support (IFS), Coalition Interoperability, Cursor on Target, and Link 16 Enhancements. Funding will provide training, logistics development, certification of individual TDL implementations to joint/allied standards, establishment of service-wide network management procedures/operations, and system wide enhancements/testing.

#### Integration:

Integration activities include, but are not limited to the Joint Aerial Layer Network (JALN) Analysis of Alternatives (AoA), Data Link Test Facility (DTF), Air Force Participating Test Unit (AFPTU), Network Centric Capability Assessment (NCCA), the Joint Warfighting Integrated NetOps (JWIN) Joint Concept Technology Demonstration (JCTD), Tactical Communications Suite (TCS), and Global UAS Networking and Interoperability System (GUNIS). Funding will ensure continued enhanced interoperability of Air Force and joint assets through efforts such as the development/coordination of all TDN standards and management capabilities, configuration management, platform/system interoperability assessments, participation in the Future Airborne Capability Environment (FACE) consortium, and interoperability certification testing.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0604281F: TACTICAL DATA NETWORKS	655050: <i>TE</i>	OL System Integration
BA 5: Development & Demonstration (SDD)	ENTERPRISE		

Activities also include studies and analysis to support both current program planning and execution and future program planning efforts for Tactical Data Networks.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2012	FY 2012
	FY 2010	FY 2011	Base	oco	Total
Title: Joint Interoperability of Tactical Command and Control Systems (JINTACCS)	5.950	8.876	8.547	-	8.547
<b>Description:</b> JINTACCS efforts include JINTACCS, iSMART, and AFPTU. JINTACCS ensures interoperability of AF TDL systems with associated joint, allied, and coalition systems and includes development, interoperability certification, TDL message standard implementation (e.g., Links 11A/B, 16, 22, VMF, IBS, MADL), and configuration management of standards.					
FY 2010 Accomplishments: Ensured compatibility and interoperability of Tactical Data Links by conducting necessary joint compatibility and interoperability tests.					
FY 2011 Plans: Ensures compatibility and interoperability of Tactical Data Links by conducting necessary joint compatibility and interoperability tests.					
FY 2012 Base Plans: Funding will ensure compatibility and interoperability of Tactical Data Links by conducting necessary joint compatibility and interoperability tests.					
FY 2012 OCO Plans:					
Title: Link 16 Support and Sustainment	12.312	15.445	4.360	-	4.360
Description: Link 16 Support and Sustainment efforts include enhancements to Link 16.					
FY 2010 Accomplishments: Supported enhancements to the Link 16 network.					
FY 2011 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			D	ATE: Febru	ary 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETWO	I .	PROJECT 655050: TDL System Integration			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Funding supports and enables enhancements to the Link 16 netwo of the Enhanced 1553 bus chipset.	rk to include the development and protoyping					
FY 2012 Base Plans: Funding will support and enable enhancements to the Link 16 netw Enhanced 1553 bus chipset prototype effort.	ork to include the completion of the					
FY 2012 OCO Plans:						
Title: TDN Integration		21.080	16.704	12.581	-	12.58
<b>Description:</b> TDN Integration efforts include JSS, IFS, DTF, NCCA JALN AoA, and JWIN JCTD.	A, JAN-TE, GUNIS, Coalition Interoperability,					
FY 2010 Accomplishments: Provided training, logistics, development, and certification to individual standards.	dual TDL implementations to joint/allied					
FY 2011 Plans: Funding provides training, logistics, development, and certification allied standards. This includes testing and fielding support of JSS.	to individual TDL implementations to joint/					
FY 2012 Base Plans: Funding will provide training, logistics, development, and certification joint/allied standards. This includes completion of JSS technical desustainment.						
FY 2012 OCO Plans:						
Title: Network Enabled Weapons (NEW)		3.014	1.000	-	-	-
<b>Description:</b> Network Enabled Weapons efforts standardize weap enhance precision-guided munitions effectiveness through target u abort messages; and improves operational assessment, re-strike d	pdates, in-flight tracking, hit indication, and					
FY 2010 Accomplishments:						

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			D	ATE: Febru	ary 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETW ENTERPRISE		PROJECT 655050: TDL System Integration			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Integrated network enabled weapons into current and future warfigh enterprise.	ting capabilities within the airborne network					
FY 2011 Plans: Completes Link 16 message standard update allowing the integration and future warfighting capabilities within the airborne network enterpression.						
FY 2012 Base Plans:						
FY 2012 OCO Plans:						
Title: Situational Awareness Data Link (SADL)		2.00	-	1.734	-	1.734
<b>Description:</b> Situational Awareness Data Link is based on the U.S. Reporting System (EPLRS) radio. SADL provides the means for me functionality for tactical exchange of situational awarenes and comme	ssage translation and Link 16 gateway					
FY 2010 Accomplishments:  Provided a secure, robust Air-Air and Air-Ground data link and a megateway.	ans to interoperate with Link 16 through a					
FY 2011 Plans:						
FY 2012 Base Plans: Funding will develop and integrate capability enhancements to upda support multiple tactical user groups within the network.	ite crypto, facilitate imagery exchange, and					
FY 2012 OCO Plans:						
Title: Quick Reaction Capabilities		3.72	0 4.403	0.685	-	0.685
Description: Quick Reaction Capabilities include BACN JUON and	CABLE.					
FY 2010 Accomplishments: Supported AF rapid acquisition requirements for communications br technology.	idging of waveforms through Gateway					
FY 2011 Plans:						

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xhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011					
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETW ENTERPRISE		PROJECT 655050: TDL System Integration					
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total		
Supports AF rapid acquisition requirements for communications b technology.	ridging of waveforms through Gateway							
FY 2012 Base Plans: Funding will support AF rapid acquisition requirements for commu Gateway technology.	unications bridging of waveforms through							
FY 2012 OCO Plans:								
Title: Common Link Integration Processing (CLIP)		-	10.657	-	-	-		
<b>Description:</b> Common Link Integration Processing efforts provide Application Protocol (JREAP) A & C message processing to the B upgrade.								
FY 2010 Accomplishments:								
<b>FY 2011 Plans:</b> Provides an enterprise solution for Link-16 and Joint Range Exter processing.	nsion Application Protocol (JREAP) message							
FY 2012 Base Plans:								
FY 2012 OCO Plans:								
Title: Joint Air Defense System Integrator (JADSI)		4.66	4 -	2.285	-	2.285		
<b>Description:</b> Joint Air Defense System Integrator efforts provide picture by receiving, processing, and correlating TDL, intelligence								
FY 2010 Accomplishments:  Provided a software and hardware package that connects and tra devices and provides situational awareness.	nslates between multiple communication							
FY 2011 Plans:								
FY 2012 Base Plans:								

2012 OCO Plans:  Ide: Cursor on Target (CoT)  Inscription: A set of data and message translation services utilizing an Extensible Mark-up Language (XML)  Inscription: A set of data and message translation services utilizing an Extensible Mark-up Language (XML)  Inscription: A set of data and message translation, and accreditation of modifications to the XML schema.	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Inding will provide for testing of a software and hardware package that connects and translates between altiple communication devices and provides situational awareness, permitting the program to transition to estainment.  If 2012 OCO Plans:  Ide: Cursor on Target (CoT)  Inscription: A set of data and message translation services utilizing an Extensible Mark-up Language (XML) mema and on-line web service to route targeting information to warfighters at the tactical edge of operations. poports future development, test, certification, and accreditation of modifications to the XML schema.  If 2010 Accomplishments:	FY 2011	Base		
ultiple communication devices and provides situational awareness, permitting the program to transition to stainment.  Z 2012 OCO Plans:  Ele: Cursor on Target (CoT)  Escription: A set of data and message translation services utilizing an Extensible Mark-up Language (XML) nema and on-line web service to route targeting information to warfighters at the tactical edge of operations. pports future development, test, certification, and accreditation of modifications to the XML schema.  Z 2010 Accomplishments:	-	4.405		
**Je: Cursor on Target (CoT)  **scription: A set of data and message translation services utilizing an Extensible Mark-up Language (XML)  **nema and on-line web service to route targeting information to warfighters at the tactical edge of operations.  **pports future development, test, certification, and accreditation of modifications to the XML schema.  **Test 2010 Accomplishments:	-	4 405		
escription: A set of data and message translation services utilizing an Extensible Mark-up Language (XML) nema and on-line web service to route targeting information to warfighters at the tactical edge of operations. pports future development, test, certification, and accreditation of modifications to the XML schema.	-	4 405		
nema and on-line web service to route targeting information to warfighters at the tactical edge of operations. pports future development, test, certification, and accreditation of modifications to the XML schema.  2010 Accomplishments:		1.495	-	1.495
•				
2044 Plane				
' 2011 Plans:				
7 2012 Base Plans: nding will support development, test, certification, and accreditation of modifications to the CoT XML schema.				
' 2012 OCO Plans:				
le: Other Gateways 5.040	10.757	3.247	-	3.247
escription: Other Gateways includes the Link-16 Alaska effort that provides communications infrastructure odernization for the Alaskan AOR through line-of-sight and beyond-line-of-sight Link 16 communications to cilitate early detection, identification, and intercept of potential threat aircraft.				
veloped and tested upgrade software for communications infrastructure modernization for the Alaskan AOR ough LOS and beyond LOS Link 16 communications.				
2011 Plans:  ovides for developmental and operation testing of communications infrastructure modernization for the askan AOR through LOS and beyond LOS Link 16 communications.				
2012 Base Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604281F: TACTICAL DATA NETWORKS

ENTERPRISE

PROJECT

655050: TDL System Integration

**DATE:** February 2011

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Funding will provide for completion and transition to sustainment of communications infrastructure modernization for the Alaskan AOR through LOS and beyond LOS Link 16 communications.					
FY 2012 OCO Plans:					
Accomplishments/Planned Programs Subtotals	57.784	67.842	34.934	_	34.934

C. Other Program Funding Summa	ry (\$ in Milli	ons)									
			FY 2012	FY 2012	FY 2012					Cost To	
<u>Line Item</u>	FY 2010	FY 2011	<b>Base</b>	OCO	<u>Total</u>	FY 2013	FY 2014	FY 2015	FY 2016	Complete Total Co	st
• PE 0207445F: Fighter TDL,	66.592	85.492	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing Continu	ng
RDT&E AF											
• PE 0207448F: <i>C2ISR TDL</i> ,	1.604	1.584	1.536	0.000	1.536	1.626	1.650	1.674	1.703	Continuing Continu	ng
RDT&E AF											
• PE 0207445F (2): Fighter TDL,	9.585	0.929	0.741	0.000	0.741	0.000	14.609	14.610	14.361	Continuing Continu	ng
APAF											
• PE 0207446F: Bomber TDL,	0.000	0.000	0.000	0.000	0.000	0.000	1.796	1.756	1.506	Continuing Continu	ng
APAF											
• PE 0207448F (4): C2ISR TDL,	0.000	0.000	0.957	0.000	0.957	0.910	0.925	1.726	1.756	Continuing Continu	ng
APAF											
• PE 0604281F: TDN Enterprise,	18.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing Continu	ng
APAF											
• PE 0207448F (6): C2ISR TDL,	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.732	15.464	Continuing Continu	ng
OPAF											
• PE 0604281F (7): <i>TDN</i>	34.613	21.742	10.498	0.000	10.498	0.269	0.248	0.169	0.170	Continuing Continu	ng
Enterprise, OPAF											
• PE 0207434F: Link 16 Support &	18.621	0.000	0.000	0.000	0.000	0.000	1.766	3.333	5.391	Continuing Continu	ng
Sustainment, O&M AF											
• PE 0207445F (9): Fighter TDL,	0.155	0.221	0.217	0.000	0.217	0.246	0.248	0.253	0.259	Continuing Continu	ng
O&M AF											
• PE 0401839F: Air Mobility TDL,	7.862	7.892	2.054	0.000	2.054	0.112	0.149	1.338	1.365	Continuing Continu	ng
O&M AF	004 700	0.4.0.4.0	00.007		00 007		00 705	07.000	00.040		
	261.763	31.318	39.867	0.000	39.867	33.886	36.705	37.662	38.612	Continuing Continu	ng

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604281F: TACTICAL DATA NETWORKS 655050: TDL System Integration

BA 5: Development & Demonstration (SDD) ENTERPRISE

C. Other Program Funding Summary (\$ in Millions)

FY 2012 FY 2012 FY 2012 Cost To

<u>Line Item</u> <u>FY 2010 FY 2011</u> <u>Base OCO Total FY 2013 FY 2014 FY 2015 FY 2016 Complete Total Cost</u>

• PE 0604281F (11): TDN Enterprise, O&M AF

#### D. Acquisition Strategy

The Airborne Networking Directorate provides for common development, integration, and interoperability across the entire Airborne Network and ensures that data links are procured and maintained as a joint, end-to-end command and control systems. Platform acquisition strategies vary by program, but the majority of development and integration is normally accomplished by the weapon system prime contractor.

#### **E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604281F: TACTICAL DATA NETWORKS

ENTERPRISE

**DATE:** February 2011

PROJECT

655050: TDL System Integration

DA 3. Development & De	emonsuand	ווו (טטט)		LIVI	ILKENISL								
Product Development	(\$ in Millio	ns)		FY 2	2011		2012 ase		2012 CO	FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JSS development efforts	C/CPAF	Northrop Grumman:San Diego, CA	75.351	-		-		-		-	Continuing	Continuing	TBD
GUNIS development efforts	SS/FFP	CoCo Communications:Seattle WA	, 4.000	-		-		-		-	Continuing	Continuing	TBC
SADL development efforts	SS/TBD	Raytheon:Fullerton, CA	1.008	-		0.749	May 2012	-		0.749	Continuing	Continuing	TBD
CLIP development efforts	C/CPAF	Northrop Grumman:San Diego, CA	-	10.657	Mar 2011	-		-		-	Continuing	Continuing	TBD
JADSI development efforts	SS/TBD	Ultra Electronics:Austin, TX	3.824	-		1.282	Feb 2012	-		1.282	Continuing	Continuing	TBD
LAK development efforts	SS/CPFF	ProLogic:Manassas, VA	5.040	6.229	Mar 2011	1.601	Mar 2012	-		1.601	Continuing	Continuing	TBC
		Subtotal	89.223	16.886		3.632		-		3.632			
Support (\$ in Millions)				FY 2	2011		2012 ise		2012 CO	FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	_
		Subtotal	-	-		-		-		-	0.000	0.000	0.000
Test and Evaluation (\$	in Millions	5)		FY 2	2011		2012 ase		2012 CO	FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
46th Test Squadron	РО	46th Test Squadron:Eglin AFB, FL	9.555	2.605	Oct 2010	2.347	Oct 2011	-		2.347	Continuing	Continuing	TBD
JINTACCS efforts	MIPR	DRS Technical Services:Herndon, VA	25.947	4.550	Feb 2011	4.687	Feb 2012	-		4.687	Continuing	Continuing	TBD
iSMART efforts	MIPR	DRS Technical Services:Herndon, VA	10.407	1.158	Feb 2011	1.192	Feb 2012	-		1.192	Continuing	Continuing	TBC
AFPTU efforts	Various	Various:Various,	12.550	3.168	May 2011	3.291	May 2012	-		3.291	Continuing	Continuing	TBD

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604281F: TACTICAL DATA NETWORKS

FY 2012

FY 2012

Base

34.934

ENTERPRISE

PROJECT

FY 2012

FY 2012

oco

FY 2012

Total

34.934

Cost To

Complete | Total Cost

Value of

Contract

FY 2012

**DATE:** February 2011

655050: TDL System Integration

Test and Evaluation (\$ i	in Millions	s)		FY 2	2011		2012 ISE		2012 CO	Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Link 16 enhancements	SS/FFP	Edgewater Systems:Ottawa, Canada,	13.889	15.445	Jan 2011	4.360	Jan 2012	-		4.360	Continuing	Continuing	TBD
JALN AoA efforts	MIPR	Booz Allen Hamilton:McLean, VA	-	2.373	Jan 2011	1.175	Jan 2012	-		1.175	Continuing	Continuing	TBD
JWIN JCTD efforts	MIPR	TBD:TBD,	-	1.450	Feb 2011	1.000	Feb 2012	-		1.000	Continuing	Continuing	TBD
Quick Reaction Capabilities IDIQ effort	TBD	TBD:TBD,	-	1.500	Jul 2011	-		-		-	Continuing	Continuing	TBD
Various Test Centers, Test Equipment, Vehicle Maintenance, Freight Shipping, etc.	Various	Various:Various,	5.476	2.787	Jan 2011	0.945	Jan 2012	-		0.945	Continuing	Continuing	TBC
		Subtotal	77.824	35.036		18.997		-		18.997			
Management Services (	(\$ in Millio	ons)		FY 2	2011		2012 Ise		2012 CO	FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS support	C/Various	Various:Various,	7.680	8.662	Jan 2011	5.552	Jan 2012	-		5.552	Continuing	Continuing	TBD
FFRDC support	C/Various	Various:Various,	9.020	6.392	Oct 2010	6.014	Oct 2011	-		6.014	Continuing	Continuing	TBD
Travel, Government Purchase Cards, Telephones, etc.	Various	Various:Various,	0.467	0.866	Jan 2011	0.739	Jan 2012	-		0.739	Continuing	Continuing	TBD
	-	Subtotal	17.167	15.920		12.305		-		12.305			
			Total Prior										Target

Remarks

FY 2011

67.842

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Years

Cost

**Project Cost Totals** 

184.214

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force	DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY  8600: Research, Development, Test & Evaluation, Air Force  BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETWORKS ENTERPRISE	PROJECT 655050: TDL System Integration

**UNCLASSIFIED** 

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

R-1 ITEM NOMENCLATURE

**DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

PE 0604281F: TACTICAL DATA NETWORKS

ENTERPRISE

655050: TDL System Integration

PROJECT

## Schedule Details

	Sta	art	E	nd
Events	Quarter	Year	Quarter	Year
Joint Interoperability of Tactical Command and Control Systems (JINTACCS)	1	2010	4	2016
Interoperable System Management and Requirements Transformation (iSMART)	1	2010	4	2016
Data Link Test Facility/Air Force Participating Test Unit (DTF/AFPTU)	1	2010	4	2016
Link 16 Enhancements	1	2010	4	2016
Joint Interoperability Control Officer Support System (JSS) development	1	2010	2	2010
JSS Integration/Fielding	2	2011	4	2012
Integration/Fielding	1	2010	4	2016
Network Enabled Weapons	1	2010	4	2011
Situational Awareness Data Link (SADL) Development	1	2010	4	2010
SADL Integration/Fielding	4	2010	2	2015
SADL Transition to WR-ALC	2	2012	2	2012
Battlefield Airborne Communication Node (BACN) Joint Urgent Operational Need (JUON) Development	1	2010	4	2010
BACN JUON Delivery	4	2010	4	2010
BACN JUON Pre-Planned Product Improvement (P3I)	1	2011	4	2012
Common Link Integration Processing (CLIP) Development	1	2010	3	2010
CLIP Test	4	2010	2	2012
CLIP Transition to WR-ALC	3	2012	3	2012
Joint Air Defense System Integrator (JADSI) Development	1	2010	3	2011
JADSI Test	3	2011	2	2012
JADSI Ver 15 Delivery	3	2011	3	2011
JADSI Transition to WR-ALC	3	2012	3	2012
Cursor on Target	1	2012	4	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604281F: TACTICAL DATA NETWORKS 655050: TDL System Integration

BA 5: Development & Demonstration (SDD) ENTERPRISE

	St	End		
Events	Quarter	Year	Quarter	Year
Link 16 Alaska (LAK) Development	1	2010	1	2011
LAK Test	2	2011	1	2012
LAK Transition to WR-ALC	2	2012	2	2012
TDN Integration Studies and Analysis	1	2010	4	2016

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	Exhibit R-2A, RD1&E Project Just	ification: PE	3 2012 Air Fo	orce						DAIE: Febi	uary 2011		
	APPROPRIATION/BUDGET ACTIV	ITY			R-1 ITEM N	OMENCLAT	URE		PROJECT				
3600: Research, Development, Test & Evaluation, Air Force					PE 0604281F: TACTICAL DATA NETWORKS   655262: F					amily of Gateways			
	BA 5: Development & Demonstration	n (SDD)			ENTERPRI	SE							
	COST (¢ in Milliana)			FY 2012	FY 2012	FY 2012					Cost To		
	COST (\$ in Millions)	FY 2010	FY 2011	Base	oco	Total	FY 2013	FY 2014	FY 2015	FY 2016	Complete	Total Cost	
	655262: Family of Gateways	102.532	65.099	17.421	-	17.421	4.216	5.512	-	-	Continuing	Continuing	

0

0

0

0

0

#### Note

Quantity of RDT&E Articles

FY 2011 funding totals include \$30.0M requested for Overseas Contingency Operations.

0

0

0

#### A. Mission Description and Budget Item Justification

Funding supports Family of Gateway study, analysis, enhancement, development, integration, demonstration, test, and evaluation efforts that will allow joint combat forces to exchange information quickly and accurately by bridging discrete airborne, terrestrial, maritime, and space-based C4ISR networks to produce operational effects not possible within individual networks. Gateway functions include enabling interoperability between data formats, protocols, and communication mediums. Additionally, gateway functions extend the range of connectivity, consolidate data from multiple networks into high capacity links for transmission to key C2ISR nodes, route information between disadvantaged users, and correlate data from multiple sources to improve accuracy. Gateway functions also provide application hosting, shared data storage, on-demand information access, smart data forwarding, and system monitoring/network management. Funding in this project will also support Quick Reaction Capability requests by the warfighter such as the Battlefield Airborne Communications Node (BACN) and the STRATCOM Distributed Nuclear Command and Control (DNC2) capabilities. Additionally, funding will support activities associated with the Joint Aerial Layer Network (JALN) Analysis of Alternatives.

Efforts in this project include waveform, ground, and quick reaction capability activities.

#### Waveforms:

Waveform activities include, but are not limited to Common Link Integration Processing (CLIP) and Situational Awareness Data Link (SADL). CLIP is a software-only, platform-independent middleware application that provides gateway services between diverse message sets and waveforms. CLIP will initially be fielded on the B-1 and B-52 platforms. SADL integrates US Air Force close air support aircraft with the digitized battlefield via the US Army's Enhanced Position Location Reporting System (EPLRS).

#### Ground:

Ground activities include, but are not limited to the Joint Air Defense System Integrator (JADSI), Joint Range Extension (JRE) functionality [which includes the JRE Transparent Multi-Platform Gateway (TMPG) Equipment Package (JTEP)], Pocket J, and Link 16 Alaska (LAK). Funding will support enhancements to the interoperability and capabilities of fielded gateways through processing capability upgrades, operating system updates, display/graphical user interface upgrades, incorporation of additional messaging standards and protocols, and completion of gateway architecture fielding.

Quick Reaction Capability:

Air Force Page 16 of 27 R-1 Line Item #61

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0604281F: TACTICAL DATA NETWORKS	655262: Fa	mily of Gateways
BA 5: Development & Demonstration (SDD)	ENTERPRISE		

Quick Reaction Capability activities include, but are not limited to, BACN, Communications Airborne Layer Expansion (CABLE), and STRATCOM DNC2. Funding will support AF rapid acquisition requirements for communications bridging of waveforms through Gateway technology. Additionally, funding will be utilized for STRATCOM classified capabilities.

Activities also include studies and analysis to support both current program planning and execution and future program planning efforts for Family of Gateways.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2012	FY 2012
	FY 2010	FY 2011	Base	OCO	Total
Title: Common Link Integration Processing (CLIP)	16.891	9.618	5.006	-	5.006
<b>Description:</b> Common Link Integration Processing efforts provide Link 16 and Joint Range Extension Application Protocol (JREAP) A & C message processing to the B-1B FIDL and B-52 Platforms via a software upgrade.					
FY 2010 Accomplishments: Provided an enterprise solution for Link-16 and Joint Range Extension Application Protocol (JREAP) message processing.					
FY 2011 Plans: Provides an enterprise solution for Link-16 and Joint Range Extension Application Protocol (JREAP) message processing.					
FY 2012 Base Plans: Funding will provide an enterprise solution for Link-16 and Joint Range Extension Application Protocol (JREAP) message processing.					
FY 2012 OCO Plans:					
Title: Other Gateways	3.023	-	-	-	-
<b>Description:</b> Other Gateways includes the Link-16 Alaska effort that provides communications infrastructure modernization for the Alaskan AOR through line-of-sight and beyond-line-of-sight Link 16 communications to facilitate early detection, identification, and intercept of potential threat aircraft.					
FY 2010 Accomplishments:					

Air Force Page 17 of 27 R-1 Line Item #61

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			D	ATE: Febru	ary 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETW ENTERPRISE		PROJECT 655262: Family of Gateways				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
Provides for integration of communications infrastructure moderniz beyond LOS Link 16 communications.	zation for the Alaskan AOR through LOS and						
FY 2011 Plans:							
FY 2012 Base Plans:							
FY 2012 OCO Plans:							
Title: STRATCOM DNC2		-	17.951	12.415	-	12.415	
<b>Description:</b> STRATCOM DNC2 efforts provide for the distribution components for analysis, decision-making and re-tasking of critical							
FY 2010 Accomplishments:							
FY 2011 Plans: Funding supports development, test, and fielding of operational-ha (GEPs) and testing with up to three aircraft to ensure functionality							
FY 2012 Base Plans: Funding will support development, test, and fielding of operational-(GEPs) and testing with up to three aircraft to ensure functionality							
FY 2012 OCO Plans:							
Title: Situational Awareness Data Link (SADL)		-	3.072	-	-	-	
<b>Description:</b> Situational Awareness Data Link is the Link 16 gates and command & control data based on U.S. Army Enhanced Posit radio. This activity develops and integrates capability enhancement facilitate imagery exchange, and support multiple tactical user grounds.	tion Location and Reporting System (EPLRS) ats to update crypto,						
FY 2010 Accomplishments:							
FY 2011 Plans:							

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			D	ATE: Febru	ary 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETWO		ROJECT 55262: Fami	ly of Gatew	ays	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Provides a secure, robust Air-Air and Air-Ground data link and a mogateway.	eans to interoperate with Link 16 through a					
FY 2012 Base Plans:						
FY 2012 OCO Plans:						
Title: Link 16 Pocket J		-	0.828	_	-	-
<b>Description:</b> Pocket J efforts provide for the primary ground-based Aerospace Defense Command (NORAD) air sovereignty mission for President of the United States support.						
FY 2010 Accomplishments:						
FY 2011 Plans: Funding supports update to technical documents and fielding support gateway supporting NORAD air sovereignty mission for CONUS are						
FY 2012 Base Plans:						
FY 2012 OCO Plans:						
Title: Joint Air Defense System Integrator (JADSI)		-	1.961	-	-	-
<b>Description:</b> Joint Air Defense System Integrator efforts provide of picture by receiving, processing, and correlating TDL, intelligence,						
FY 2010 Accomplishments:						
FY 2011 Plans: Funding provides for testing of a software and hardware package the communication devices and provides situational awareness.	nat connects and translates between multiple					
FY 2012 Base Plans:						
FY 2012 OCO Plans:						
Title: J-Range Ext/Transparent Equip Pkg (JRE/JTEP)		3.31	1.669	-	-	-

**UNCLASSIFIED** 

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			D	ATE: Febru	ary 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETWO		PROJECT 655262: Fami	ly of Gatew	ays	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 201	0 FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Description:</b> JRE efforts provide for TDL translation, routing, and forware networks. JTEP efforts provide for connection of line-of-sight networks networks using serial and satellite links.						
FY 2010 Accomplishments: Supported development and testing (operational and joint interoperability forwarder connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks and long-haul BLOS networks upon the connection of LOS networks up						
FY 2011 Plans: Funding supports fielding and completion of technical activities in prepa	ration for transition to sustainment.					
FY 2012 Base Plans:						
FY 2012 OCO Plans:						
Title: Quick Reaction Capabilities			- 30.000	-	-	-
Description: Quick Reaction Capabilities include BACN JUON and CA	BLE.					
FY 2010 Accomplishments:						
FY 2011 Plans: OCO funding supports BACN pre-planned product improvement (P3I), of multiple, high-capacity voice and data links.	development, integration, and testing of					
FY 2012 Base Plans:						
FY 2012 OCO Plans:						
Accompl	ishments/Planned Programs Subtotals	23.23	65.099	17.421	-	17.421
		FY 201	0 FY 2011			
Congressional Add: Battlefield Airborne Communications Node		79.30	00 -			
<b>FY 2010 Accomplishments:</b> Congressional add for BACN previously in Sustainment, due to an error.	n PE 0207434, Link 16 Support and					
FY 2011 Plans:						
	Congressional Adds Subtotals	79.30	- 00			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

PE 0604281F: TACTICAL DATA NETWORKS ENTERPRISE

655262: Family of Gateways

## C. Other Program Funding Summary (\$ in Millions)

C. Other Program Funding Summa	<u>ry (\$ in Millii</u>	<u>ons)</u>									
			FY 2012	FY 2012	FY 2012					<b>Cost To</b>	
Line Item	FY 2010	FY 2011	Base	ОСО	Total	FY 2013	FY 2014	FY 2015	FY 2016	Complete	<b>Total Cost</b>
• PE 0207445F: Fighter2 TDL,	66.592	85.492	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
RDT&E AF											
• PE 0207448F: C2ISR TDL,	1.604	1.584	1.536	0.000	1.536	1.626	1.650	1.674	1.703	Continuing	Continuing
RDT&E AF											
• PE 0207445F (2): Fighter TDL,	9.585	0.929	0.741	0.000	0.741	0.000	14.609	14.610	14.361	Continuing	Continuing
APAF											
• PE 0207446F: Bomber TDL,	0.000	0.000	0.000	0.000	0.000	0.000	1.796	1.756	1.506	Continuing	Continuing
APAF											
• PE 0207448F (4): C2ISR TDL,	0.000	0.000	0.957	0.000	0.957	0.910	0.925	1.726	1.756	Continuing	Continuing
APAF											
• PE 0604281F: TDN Enterprise,	18.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
APAF											
• PE 0207448F (6): C2ISR TDL,	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.732	15.464	Continuing	Continuing
OPAF											
• PE 0604281F (7): <i>TDN</i>	34.613	21.742	10.498	0.000	10.498	0.269	0.248	0.169	0.170	Continuing	Continuing
Enterprise, OPAF											
• PE 0207434F: Link 16 Support &	18.621	0.000	0.000	0.000	0.000	0.000	1.766	3.333	5.391	Continuing	Continuing
Sustainment, O&M AF											
• PE 0207445F (9): Fighter TDL,	0.155	0.221	0.217	0.000	0.217	0.246	0.248	0.253	0.259	Continuing	Continuing
O&M AF											
• PE 0401839F: <i>Air Mobility TDL</i> ,	7.862	7.892	2.054	0.000	2.054	0.112	0.149	1.338	1.365	Continuing	Continuing
O&M AF											
• PE 0604281F (11): <i>TDN</i>	261.763	31.318	39.867	0.000	39.867	33.886	36.705	37.662	38.612	Continuing	Continuing
Enterprise, O&M AF											

## D. Acquisition Strategy

The Airborne Networking Directorate provides for common development, integration and interoperability across the entire Airborne Network and ensures that data links are procured and maintained as a joint, end-to-end, command and control system. Platform acquisition strategies vary by program, but the majority of development and integration is normally accomplished by the weapon system prime contractor.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	PE 0604281F: TACTICAL DATA NETWORKS ENTERPRISE	655262: Family of Gateways
E. Performance Metrics		
Please refer to the Performance Base Budget Overview Book for		nd how those resources are contributing to Air
Force performance goals and most importantly, how they contribute	ute to our mission.	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

Air Force

3600: Research, Development, Test & Evaluation, Air Force

R-1 ITEM NOMENCLATURE

PE 0604281F: TACTICAL DATA NETWORKS

**DATE:** February 2011

PROJECT

655262: Family of Gateways

BA 5: Development & De	inonstratio	ni (ODD)											
Product Development (	\$ in Millio	ns)		FY 2	2011	FY 2 Ba		FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CLIP development efforts	C/CPAF	Northrop Grumman:San Diego, CA	69.253	3.847	Mar 2011	3.414	Mar 2012	-		3.414	Continuing	Continuing	TBD
LAK development efforts	SS/CPFF	ProLogic:Manassas, VA	18.763	-		-		-		-	Continuing	Continuing	TBD
SADL development efforts	SS/TBD	Raytheon:Fullerton, CA	7.753	1.418	May 2011	-		-		-	Continuing	Continuing	TBD
JRE/JTEP development efforts	SS/FFP	L-3 Communications:San Diego, CA	11.911	0.508	Jan 2011	-		-		-	Continuing	Continuing	TBD
Pocket J development efforts	SS/FFP	ProLogic:Fairmont, VA	10.206	0.258	Feb 2011	-		-		-	Continuing	Continuing	TBD
JADSI development efforts	SS/TBD	Ultra Electronics:Austin, TX	13.554	0.669	Feb 2011			-		-	Continuing	Continuing	TBD
BACN JUON development efforts	SS/CPFF	Northrop Grumman:San Diego, CA	172.715	18.684	Apr 2011	-		-		-	Continuing	Continuing	TBD
		Subtotal	304.155	25.384		3.414		-		3.414			
Support (\$ in Millions)		Subtotal	304.155	25.384 FY 2	2011	3.414 FY 2 Ba	-	- FY 2 O(		3.414 FY 2012 Total			
Support (\$ in Millions)  Cost Category Item	Contract Method & Type	Subtotal  Performing Activity & Location	Total Prior Years Cost		2011 Award Date	FY 2	-	FY 2		FY 2012	Cost To Complete	Total Cost	Target Value of Contract
,	Method	Performing	Total Prior Years	FY 2	Award	FY 2 Ba	se Award	FY 2 OC	O Award	FY 2012 Total		Total Cost	Value of
,	Method & Type	Performing Activity & Location Subtotal	Total Prior Years	FY 2	Award Date	FY 2 Ba	Award Date	FY 2 OC	Award Date	FY 2012 Total	Complete		Value of Contract
Cost Category Item	Method & Type	Performing Activity & Location Subtotal	Total Prior Years	FY 2 Cost	Award Date	FY 2 Ba  Cost	Award Date	FY 2 OC Cost	Award Date	FY 2012 Total Cost	Complete		Value of Contract
Cost Category Item  Test and Evaluation (\$	Method & Type in Millions Contract Method	Performing Activity & Location Subtotal	Total Prior Years Cost - Total Prior Years	FY 2 Cost -	Award Date	FY 2 Ba  Cost  FY 2 Ba	Award Date	Cost - FY 2	Award Date	FY 2012 Total Cost - FY 2012 Total	Complete 0.000	0.000	Value of Contract 0.000 Target Value of Contract
Cost Category Item  Test and Evaluation (\$  Cost Category Item	Method & Type  in Millions  Contract Method & Type	Performing Activity & Location Subtotal  Performing Activity & Location  46th Test Squadron:Eglin AFB,	Total Prior Years Cost - Total Prior Years Cost	Cost - FY 2	Award Date	FY 2 Ba  Cost  FY 2 Ba	Award Date	Cost FY 2 OC Cost	Award Date	FY 2012 Total Cost - FY 2012 Total	Cost To Complete Continuing	Total Cost Continuing	Value of Contract 0.000 Target Value of Contract
Cost Category Item  Test and Evaluation (\$  Cost Category Item  46th Test Squadron	Method & Type  in Millions  Contract Method & Type  PO	Performing Activity & Location Subtotal  Performing Activity & Location  46th Test Squadron:Eglin AFB, FL SPAWAR:San Diego,	Total Prior Years Cost  -  Total Prior Years Cost 3.618	Cost FY 2 Cost Cost 0.699	Award Date  2011  Award Date  Oct 2010	FY 2 Ba  Cost  FY 2 Ba  Cost	Award Date  2012 se  Award Date	FY 2 OC Cost - Cost	Award Date	FY 2012 Total  Cost - FY 2012 Total  Cost - Cost	Cost To Complete  Continuing  Continuing	Total Cost Continuing Continuing	Value of Contract 0.000 Target Value of

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604281F: TACTICAL DATA NETWORKS

ENTERPRISE

PROJECT

655262: Family of Gateways

Test and Evaluation (\$ in Millions)			FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Various Test Centers, Test Equipment, etc.													
		Subtotal	35.801	28.902		12.745		-		12.745			

Management Services (	\$ in Millio	ns)		FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS support	C/Various	Various:Various,	7.703	4.775	Jan 2011	0.732	Jan 2012	-		0.732	Continuing	Continuing	TBD
FFRDC support	C/Various	Various:Various,	6.869	5.238	Oct 2010	0.480	Oct 2011	-		0.480	Continuing	Continuing	TBD
Travel, Government Purchase Cards, Telephones, etc.	Various	Various:Various,	0.216	0.800	Jan 2011	0.050	Jan 2012	-		0.050	Continuing	Continuing	TBD
		Subtotal	14.788	10.813		1.262		-		1.262			

				-							
	Total Prior										Target
	Years			FY 2	2012	FY:	2012	FY 2012	Cost To		Value of
	Cost	FY:	2011	Ba	se	0	co	Total	Complete	Total Cost	Contract
Project Cost Totals	354.744	65.099		17.421		-		17.421			

Remarks

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	DATE: February 2011
R-1 ITEM NOMENCLATURE PE 0604281F: TACTICAL DATA NETWORKS ENTERPRISE	PROJECT 655262: Family of Gateways
	PE 0604281F: TACTICAL DATA NETWORKS

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

## R-1 ITEM NOMENCLATURE

PE 0604281F: TACTICAL DATA NETWORKS

ENTERPRISE

#### PROJECT

655262: Family of Gateways

**DATE:** February 2011

## Schedule Details

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
Common Link Integration Processing (CLIP) Development	1	2010	3	2010	
CLIP Test	4	2010	2	2012	
CLIP Transition to WR-ALC	3	2012	3	2012	
Situational Awareness Data Link (SADL) Development	1	2010	4	2010	
SADL Integration/Fielding	4	2010	2	2015	
SADL Transition to WR-ALC	2	2012	2	2012	
J-Range Extension/Transparent Equipment Package (JRE/JTEP) Development	1	2010	2	2010	
JRE/JTEP Test	3	2010	2	2011	
JRE/JTEP Integration/Fielding	2	2011	3	2011	
JRE/JTEP Transition to WR-ALC	3	2011	3	2011	
Pocket J Test	1	2010	2	2011	
Pocket J Integration/Fielding	2	2011	4	2012	
Pocket J Transition to WR-ALC	2	2012	2	2012	
Joint Air Defense System Integrator (JADSI) Development	1	2010	3	2011	
JADSI Test	3	2011	2	2012	
JADSI Ver 15 Delivery	3	2011	3	2011	
JADSI Transition to WR-ALC	3	2012	3	2012	
Link 16 Alaska (LAK) Development	1	2010	1	2011	
LAK Test	2	2011	1	2012	
LAK Transition to WR-ALC	2	2012	2	2012	
Battlefield Airborne Communications Node (BACN) Joint Urgent Operational Need (JUON) Development	1	2010	4	2010	
BACN JUON Delivery	4	2010	4	2010	

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604281F: TACTICAL DATA NETWORKS 655262: Family of Gateways

BA 5: Development & Demonstration (SDD) ENTERPRISE

	St	art	End		
Events	Quarter	Year	Quarter	Year	
BACN JUON Pre-Planned Product Improvement (P3I)	1	2011	4	2012	
STRATCOM Risk-Reduction Activities	1	2011	1	2013	
STRATCOM Insertion and Modeling and Simulation	1	2013	2	2015	

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